

ANPz102

open loop, linear, vertical stepper positioner

Technical Specifications

Technology		Compatibility with Electronics	
travel mechanism	inertial piezo drive	ANC300 piezo positioning controller	ANM150, ANM300
Size and Dimensions		Working Conditions	
footprint; height	24 x 24; 27 mm	mounting orientation	axis vertical
maximum size	24 x 24; 32 mm	magnetic field range	0 .. 31 T
weight	53 g	temperature range (/RT, /HV, /UHV)	0 .. 100 °C
Coarse Positioning Mode		temperature range (/LT, /LT/HV, /LT/UHV)	10 mK .. 373 K
	@ 300 K	max. bake out temperature (/UHV, /LT/UHV)	150 °C
input voltage range	0 .. 60 V	minimum pressure (/RT, /LT)	1E-4 mbar
typical actuator capacitance	1.106µF	minimum pressure (/HV, /LT/HV)	1E-8 mbar
travel range (step mode)	5 mm	minimum pressure (/UHV, /LT/UHV)	5E-11 mbar
typical minimum step size	50 nm	Accuracy of Movement	
maximum drive velocity	≈ 3 mm/s	repeatability of step sizes	typically 5 % over full range
Fine Positioning Mode		forward / backward step asymmetry	typically 5 - 10 % depending on load
	@ 300 K	Connectors and Feedthroughs	
input voltage range	0 .. 100 V	/RT, /LT Versions	all /HV, /UHV Versions
fine positioning range	0 .. 5 µm	connector type	2-pole pin plug, ø 0.5 mm, d = 2 mm, integrated connector
fine positioning resolution	sub-nm	electrical feedthrough solution	---
Materials (non-magnetic)			
positioner body	titanium (upgrade option: copper beryllium)		
actuator	PZT ceramics		
connecting wires	insulated twisted pair, copper		
Load (@ ambient conditions)		mounting orientation: axis vertical	
maximum load	2 N (200 g)		
maximum dynamic force along the axis	5 N		
Mounting			
from the top	2 through holes dia 2.2 mm, cntrbr. f. M2		
from the bottom	2 threads M2.5 x 3.4 mm		
load on top	10 threads M2 x 3.3 mm		
Article Numbers			
/RT version	1009454		
/HV version	1009456		
/UHV version	1009457		
/LT version	1009455		
/LT/HV version	1009458		
/LT/UHV version	1009459		

Technical Drawings

